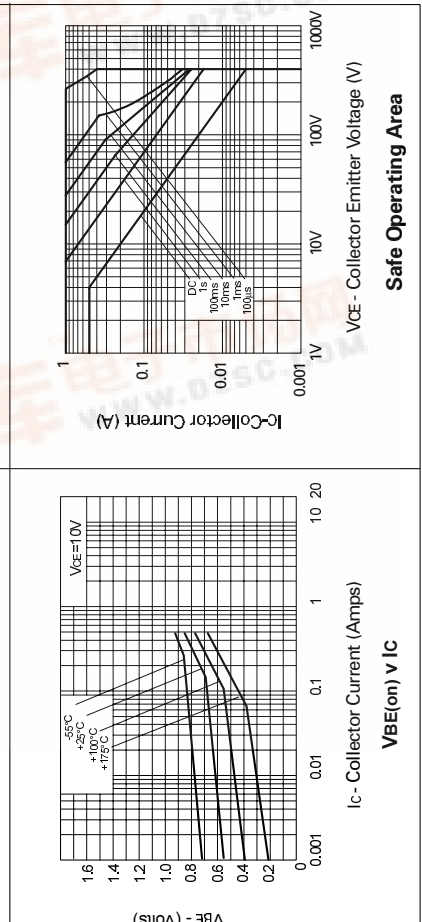
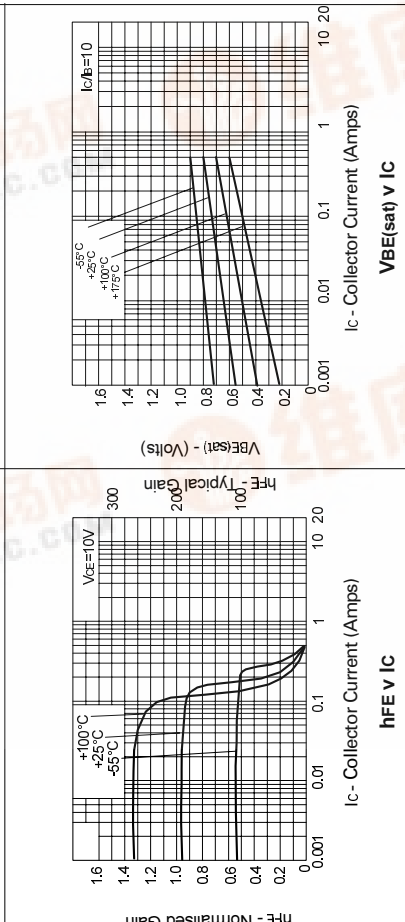
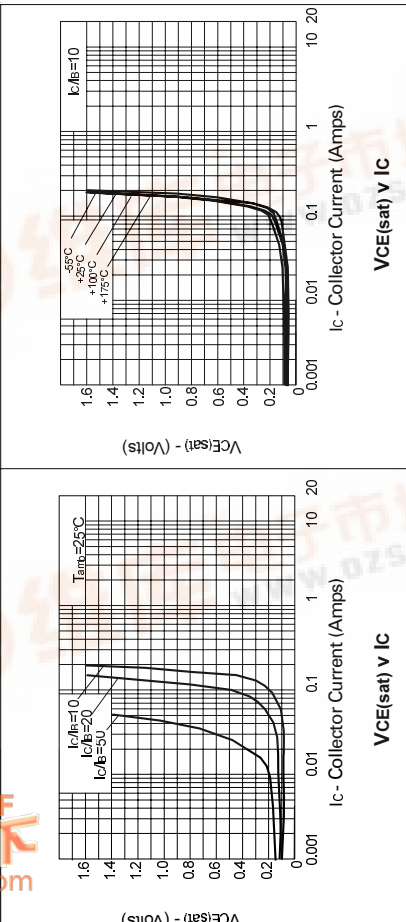




FZT758

TYPICAL CHARACTERISTICS

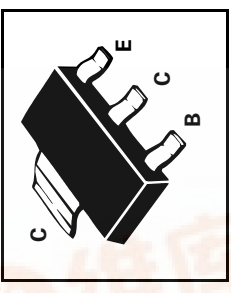


SOT223 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

ISSUE 2 – FEBRUARY 1995

FEATURES

- * 400 Volt V_{CE0}
 - * 0.5 Amp continuous current
 - * Low saturation voltage
- COMPLEMENTARY TYPE – FZT658
PARTMARKING DETAIL – FZT758



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CB0}	-400	V
Collector-Emitter Voltage	V_{CE0}	-400	V
Emitter-Base Voltage	V_{EB0}	-5	V
Peak Pulse Current	I_{CM}	-1	A
Continuous Collector Current	I_C	-500	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	2	W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

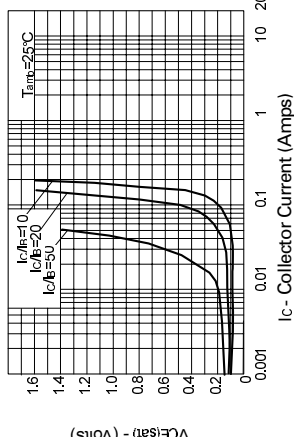
ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-400		V	$I_C = 100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{CE0(SUS)}$	-400		V	$I_C = 10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	$I_E = 100\mu\text{A}$
Collector Cut-Off Current	I_{CBO}	-100		nA	$V_{CB} = -320\text{V}$
Collector Cut-Off Current	I_{CES}	-100		nA	$V_{CE} = -320\text{V}$
Emitter Cut-Off Current	I_{EBO}	-100		nA	$V_{EB} = -4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-0.30		V	$I_C = 20\text{mA}, I_B = 1\text{mA}$
		-0.25		V	$I_C = 50\text{mA}, I_B = 5\text{mA}^*$
		-0.50		V	$I_C = 100\text{mA}, I_B = 10\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-0.9		V	$I_C = 100\text{mA}, I_B = 10\text{mA}^*$
Base-Emitter Turn On Voltage	$V_{BE(on)}$	-1.0		V	$I_C = 100\text{mA}, V_{CE} = 5\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	50			$I_C = 1\text{mA}, V_{CE} = 5\text{V}$
		50			$I_C = 100\text{mA}, V_{CE} = 5\text{V}^*$
		40			$I_C = 200\text{mA}, V_{CE} = 10\text{V}^*$
Transition Frequency	f_T	50		MHz	$I_C = 20\text{mA}, V_{CE} = 20\text{V}, f = 20\text{MHz}$
Output Capacitance	C_{obo}	20		pF	$V_{CB} = -20\text{V}, f = 1\text{MHz}$
Switching times	t_{on}	140	Typical	ns	$I_C = 100\text{mA}, V_{CC} = 100\text{V}$
	t_{off}	2000	Typical	ns	$I_{B1} = 10\text{mA}, I_{B2} = -20\text{mA}$

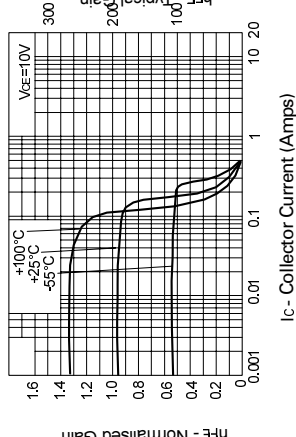
* Measured under pulsed conditions. Pulse width=300µs. Duty cycle ≤2%
Spice parameter data is available upon request for this device

FZT758

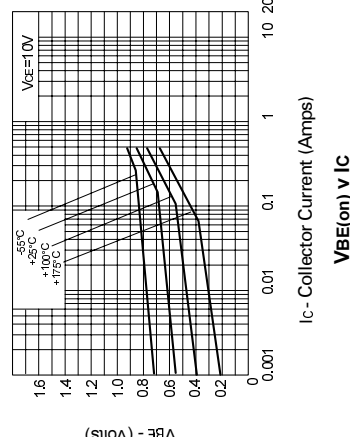
TYPICAL CHARACTERISTICS



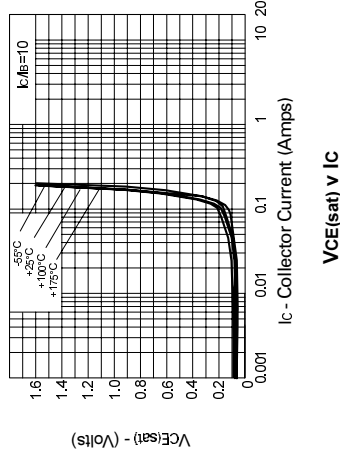
VCE(sat) v IC



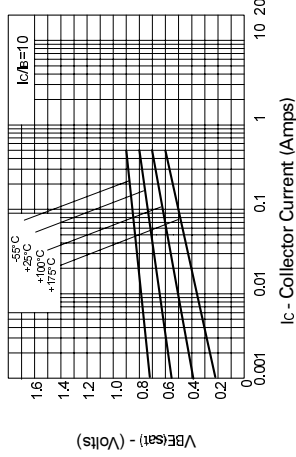
hFE v IC



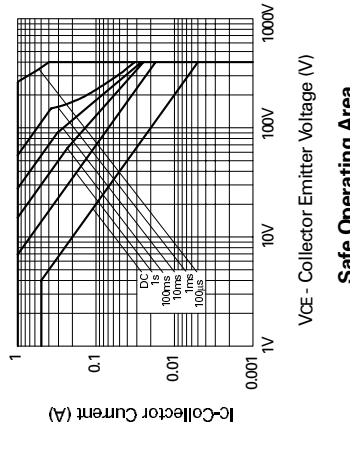
VBE(on) v IC



VCE(sat) v IC



VBE(sat) v IC



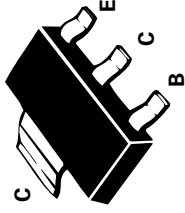
Safe Operating Area

SOT223 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

ISSUE 2 – FEBRUARY 1995

FEATURES

- * 400 Volt V_{CEO}
 - * 0.5 Amp continuous current
 - * Low saturation voltage
- COMPLEMENTARY TYPE – FZT658
PARTMARKING DETAIL – FZT758



FZT758

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V _{CB0}	-400	V
Collector-Emitter Voltage	V _{CEO}	-400	V
Emitter-Base Voltage	V _{EBO}	-5	V
Peak Pulse Current	I _{CM}	-1	A
Continuous Collector Current	I _C	-500	mA
Power Dissipation at T _{amb} =25°C	P _{tot}	2	W
Operating and Storage Temperature Range	T _J ; T _{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	V _{(BR)CBO}	-400		V	I _C =-100µA
Collector-Emitter Breakdown Voltage	V _{CEO(SUS)}	-400		V	I _C =-10mA*
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	-5		V	I _E =-100µA
Collector Cut-Off Current	I _{CBO}	-100		nA	V _{CB} =-320V
Collector Cut-Off Current	I _{CES}	-100		nA	V _{CE} =-320V
Emitter Cut-Off Current	I _{EBO}	-100		nA	V _{EB} =-4V
Collector-Emitter Saturation Voltage	V _{CE(sat)}	-0.30		V	I _C =-20mA, I _B =-1mA
		-0.25		V	I _C =-50mA, I _B =-5mA*
		-0.50		V	I _C =-100mA, I _B =-10mA*
Base-Emitter Saturation Voltage	V _{BE(sat)}	-0.9		V	I _C =-100mA, I _B =-10mA*
Base-Emitter Turn On Voltage	V _{BE(on)}	-1.0		V	I _C =-100mA, V _{CE} =-5V*
Static Forward Current Transfer Ratio	h _{FE}	50			I _C =-1mA, V _{CE} =-5V
		50			I _C =-100mA, V _{CE} =-5V*
		40			I _C =-200mA, V _{CE} =-10V*
Transition Frequency	f _T	50		MHz	I _C =-20mA, V _{CE} =-20V, f=20MHz
Output Capacitance	C _{obo}		20	pF	V _{CB} =-20V, f=1MHz
Switching times	t _{on}	140	Typical	ns	I _C =-100mA, V _{CC} =-100V
	t _{off}	2000	Typical	ns	I _{B1} =-10mA, I _{B2} =-20mA

* Measured under pulsed conditions. Pulse width=300µs. Duty cycle ≤2%
Spice parameter data is available upon request for this device